Million $ Match! Donate Now to Maximize Your Impact!

03/07/24 • BIG PHARMA › NEWS

'Especially Dangerous' to Children, Pregnant Women: Thousands of Chemicals Linked to Rising Rates of Cancer, Infertility and Obesity

New evidence suggests that endocrine-disrupting chemicals found in consumer products, food, water and soil are behind the global rise in reproductive disorders, cancer, diabetes, obesity, heart disease, neurological conditions, reduced immune function and chronic inflammation.

By **Mongabay**

4

Miss a day, miss a lot. *Subscribe to The Defender's Top News of the Day.* ***It's free.***

By Alden Wicker

- Endocrine-disrupting chemicals, which harm the human body's regulation of hormones, have become ubiquitous in consumer products, food, water and soil, says a new report, leading to serious global health impacts.
- There are some 350,000 synthetic chemicals and polymers used worldwide, and thousands may be endocrine disruptors. Most were not studied for their human health effects before being marketed. Known and suspected endocrine disruptors are found in pesticides, plastic additives, cosmetics and waterproofing finishes.
- The new report examines four sources of endocrine-disrupting chemicals: plastics, pesticides, consumer products and per- and polyfluorinated substances (PFAS). Rising rates of cancer, infertility, and obesity are suspected to be at least partially attributable to the presence of endocrine disruptors in the human body.
- The Endocrine Society and International Pollutants Elimination Network (IPEN), which co-authored the new report, are calling for legally binding global treaties to restrict and ban endocrine disruptor production and use.

A new report makes the strong case that a class of industrial chemicals called endocrine disruptors are behind many diseases on the rise globally. The report calls for stronger global regulations controlling their use and release into the environment.

A joint effort by the Endocrine Society and the IPEN, the report includes fresh research from the past decade documenting evidence that endocrine-disrupting chemicals (EDCs) contribute to reproductive disorders, cancer, diabetes, obesity, heart disease, neurological conditions, reduced immune function, chronic inflammation and other serious health conditions.

Research shows the chemicals to be especially dangerous to pregnant women and to children.

Endocrine disruptors interfere with natural human hormones and disrupt the smooth functioning of the endocrine system, which governs everything from fetal development and fertility to skin appearance, metabolism and immune function. Some endocrine-related disorders can lead to death.

More than 24% of human diseases and disorders globally are attributable to environmental factors such as pollutants and hazardous chemical exposure, the report says, and those environmental factors play a role in 80% of the deadliest diseases, including cancer and heart disease.

There are an estimated 350,000 manufactured chemicals and polymers used worldwide, and thousands of those may be endocrine disruptors. Most have not been studied for their effects on human health before being released onto the market.

Research shows endocrine-disrupting chemicals to be especially dangerous to pregnant women and to children. Image credit: Anna Dubuis/DFID via flickr

Lagging EDC regulation, growing concern

Current global legislation on toxic chemical exposure is based on the traditional understanding that "the dose makes the poison." That is, hazardous substances only impact health at high levels.

But IPEN science advisor Sara Brosché, Ph.D., countered that misperception in the organization's press release:

> "We know that even very low doses of endocrine disrupting chemicals can cause health problems and there may be no safe dose for exposure to EDCs."

Regulation of endocrine disruptors around the globe is similarly lax and lagging behind current science.

The new report was released during the U.N. Environment Assembly (UNEA-6) meeting in Nairobi, where the UNEA is expected to welcome the newly adopted Global Framework on Chemicals and try to advance global action on highly hazardous pesticides.

Later this year both UNEP and the World Health Organization are expected to release an update to their 12-year-old report on State of the Science of Endocrine Disrupting Chemicals.

The Endocrine Society, an organization of hormone research scientists and physicians who care for people with hormone-related conditions, and IPEN, which promotes policies to protect human health from the production, use and disposal of toxic substances, is not alone in sounding the alarm.

Medical societies including the American Medical Association, American Public Health Association, the U.K. Royal College of Obstetricians and Gynaecologists, the American Society of Reproductive Medicine and the International Conference on Children's Health and Environment have all issued statements calling for more care and control of endocrine disruptors.

A farmer spraying pesticide in a rice field in Nepal. Image by Prakash Aryal via Pexels.

Endocrine disruptor exposure is ubiquitous

The new report examines four sources of endocrine-disrupting chemicals: plastics, pesticides, consumer products and PFAS.

Since the Endocrine Society's last report on this topic in 2014, the scientific understanding of PFAS and their link to endocrine-related illness has grown enormously and now comprises its own section of the report.

PFAS is a class of chemicals used for stain and water-resistant coatings and has been found on children's clothing and food packaging as well as in the drinking water of almost half of Americans.

The 2024 report also expands on evidence indicating that endocrine disruptors can lead to metabolic dysfunctions, including obesity.

Consumers can easily be exposed to endocrine disruptors through furniture, toys and children's products, food packaging, electronics, building materials, cosmetics and clothing.

However, this information is not being systematically disseminated to physicians or patients who have endocrine-related disorders. Nor is it included on product labels, except for cosmetics, where it can be confusing and unhelpful.

"We [physicians and scientists] need to do a better job of getting resources to the public," the report's lead author Andrea C. Gore, Ph.D., professor and Vacek chair of pharmacology at the University of Texas at Austin, wrote to Mongabay in an email.

Gore said:

> "Some physicians I know tell me that they ask their patients, including in fertility clinics, about lifestyle choices.
>
> "These questions are beginning to include [concerns] over the use of plastics, what people eat, and can lead to conversations to make changes such as not microwaving in plastic, and washing fruit and vegetables."

But the toxicity issue goes far beyond the kitchen. Although endocrine disruptors like bisphenol A (BPA), get the most attention when they're in consumer products such as baby bottles, "Exposures to EDCs from plastics occur at all phases of plastics production, use, disposal, and even from recycled plastics," the report says.

PFAS are a class of chemicals used for stain and water-resistant coatings. They've been found on children's clothing and in food packaging. Image credit: Janet McKnight via flickr.

Exposure to endocrine disruptors in plastics is especially problematic in Asia, where the majority of plastic is manufactured under loose environmental and workplace controls, and in developing countries, where plastic waste is typically dumped at the end of its short life cycle.

Global production of plastics skyrocketed in the past 50 years, from 50 million metric tons to 460 million metric tons annually today.

Though plastics can contain thousands of additives, many of which are known to be hazardous and many more that are almost unknown to researchers, the new report zeroes in on bisphenols such as BPA, and phthalates, two known endocrine disruptors ubiquitous in plastic consumer products — including bottles, workout clothing, medical supplies and children's toys.

Many endocrine disruptors find their way into the human body via food packaging and kitchenware.

As an example, the report cites research showing that people are exposed to 60 nanograms a day of toxic flame retardants in plastic kitchen utensils, especially recycled ones. Food packaging is thought to contribute to the levels of both phthalates and BPA in our bodies.

A collection of plastic toys. Consumers can easily be exposed to endocrine disruptors through furniture, toys and children's products, food packaging, electronics, building materials, cosmetics, and clothing. Product labels offer almost no help identifying consumer goods containing EDCs. Image credit: David Zellaby via flickr.

Contaminating air, water and land

Endocrine disruptor exposure from pesticides, air pollutants and industrial waste varies widely from country to country.

Highly hazardous pesticides that are banned in the Global North are still being produced and exported to the Global South, where they are taking a heavy toll, according to a new Atlas of Pesticides, with Brazil a leading user and agricultural pesticides linked to child cancer deaths.

DDT is still produced in India and human exposure occurs worldwide, despite it being banned in many countries, including the U.S. since 1972.

Glyphosate, the world's most widely used herbicide, has eight of the 10 key characteristics of an endocrine disruptor, according to the report, and has been linked to adverse reproductive health outcomes.

While farmworkers are especially at risk, homeowners can be exposed through the use of glyphosate in their gardens and on lawns, and the general population can be exposed through food residue, air, water and toxic dust.

An analysis of samples collected in 2013 and 2014 showed that 81% of Americans had detectable levels of glyphosate in their urine, with similar levels in the European Union (EU) and Australia.

The report also looked at the hormone-specific health effects of the heavy metals lead and arsenic. Lead, still used in paint in many countries, may contribute to endocrine-related conditions like delayed onset of puberty and early menopause.

Arsenic, which has been found in baby foods, "has long been linked to cancer and other health conditions, and more recent evidence shows that arsenic can disrupt multiple endocrine systems," the report says.

Glyphosate, the world's most widely used herbicide, has eight of the ten key characteristics of an endocrine disruptor, according to the report, and has been linked to adverse reproductive health outcomes. Image credit: Global Justice Now via flickr.

EDCs poorly regulated

In 1998, the U.S. Environmental Protection Agency (EPA) established a program to assess pesticides used on food for endocrine disruption.

But "to date the agency has tested very few pesticides and found none to be endocrine disruptors," the report says.

While the U.S. at the federal level does ban some phthalates in children's products, the U.S. Food and Drug Administration (FDA) has no requirements for endocrine disruptor testing and allows BPA and several phthalates that are known endocrine disruptors to be used legally and intentionally in food packaging. (The plastics and chemical industries point to the FDA's lax policy as proof of plastic's safety.)

When asked for comment on this story, the American Chemistry Council (ACC) said it had not had the chance to thoroughly review the new report but that the Council didn't believe the link between endocrine-disrupting chemicals and human disease had been sufficiently established to merit action.

"Taking action even when causality has not been sufficiently established is inconsistent with risk-based U.S. chemical regulation laws," an ACC representative wrote in an email to Mongabay. "It is also inconsistent with the judicious use of limited public health resources.

The ACC pointed to the EPA's recently revamped Endocrine Disruptor Screening Program, which just closed the comment period on several types of pesticides.

The EPA, "found that existing regulatory levels are protective in most cases. This is an important result that demonstrates some endocrine-mediated risks are likely not as significant as some initially envisioned when the Endocrine Disruptor Screening Program was launched over two decades ago," the ACC representative wrote. (In a comment submitted in February to the EPA, the Endocrine Society critiqued several aspects of the EPA screening program as insufficient and overly narrow.)

The Plastics Industry Association did not respond to Mongabay's request for comments on this story.

The EU has started to take the threat of endocrine disruptors more seriously, adopting criteria for their identification in biocides and pesticides. In 2020, the EU called for several actions, including a ban on endocrine disruptors in consumer products.

When the European Food Safety Authority offered its opinion supporting a proposed reduction of the tolerable daily intake level of BPA in food contact materials, the American Chemistry Council responded that "low-dose effects [were] based on very few, lower quality experimental animal studies."

EDC use continues almost completely unabated, especially in non-Western countries.

Because EDCs are not labeled and so widespread, it's impossible for even the most educated public to avoid endocrine disruptors. That is why IPEN, which focuses its work in developing nations, is calling for global agreements to restrict and ban these chemicals.

IPEN says it hopes that the international plastics treaty, currently in negotiation, will address hazardous chemicals in plastics.

However, some nations, including the U.S., Russia, Saudi Arabia and Iran, are resisting that process.

"Where you have plastics, you have EDCs," Brosché, IPEN's science adviser, said at a Feb. 26 press conference.

"We know the problem will become much worse without international action."

Originally published by Mongabay.

Alden Wicker is a solutions-oriented investigative journalist in sustainability and health, and the founder of EcoCult.

Subscribe to The Defender – It's Free!

First Name.. Last Name.. Email..

SIGN UP

SUGGEST A CORRECTION

Mongabay
Mongabay is an award-winning, nonprofit media outlet providing daily news and inspiration from nature's frontline in 10 languages via five international bureaus.

Sign up for free news and updates from Children's Health Defense. CHD focuses on legal strategies to defend the health of our children and obtain justice for those injured. We can't do it without your support.

Republishing Guidelines

Children's Health Defense Comment Policy
We welcome relevant and respectful comments. Off-topic comments may be removed.
Please read our Comment Policy before commenting.
Got it

4 Comments

1 Login ▾

Join the discussion…

LOG IN WITH
OR SIGN UP WITH DISQUS ?
Name

♡ Share
Best Newest Oldest

Voyt Regnal
2 months ago
"The report calls for stronger global regulations controlling their use and release into the environment."

I support it. I would like to read WHO's response regarding this. But WHO is more concerned about global search for BS like zoonotic viruses, 'diseases x', 'pandemics' and how to collect more money from nations to cover its global bureaucratic expenses.

3 0 Reply Share ›

Isthisthingon → Voyt Regnal
2 months ago
Not to mention Global Domination and Dictatorship over all Nations!

Seriously, the chaos being generated by the alarming reality of how egregious the Criminal Elite have operated as using the Planet and all its inhabitants as a Commodity and obviously as a Toxic Dump, is so crazy that it boggles most peoples minds and feels like it is feeding right into "their" plan of "needing" Centralized Governance over the Earth as a whole in order to Control this Mess.

It simply bends the mind how our so-called protective agencies APPROVE all these incredulous Life Killing Toxins and then cry, "Oops, just don't know how this harm slipped passed us!" If they even admit to any harm at all! Where are the Environmental Impact Statements?

I'm literally running around like freaking Chicken Little and most people seem totally Drugged or in Mass Formation Psychosis/Stockholm Syndrome! Most have been so distracted by superficial entertainment and personal chaos, they simply aren't prepared to cope-weak, so weak, soft, dumbed down, addicted, scared to death-the brain puts blinders on and literally narrows the focus in order to get through the day!

I did have an unexpected conversation with a group of employees at Value Village and I was surprised by how many did have some idea of what is going down, and when I announced very loudly that RFK was the only Candidate for President to Vote for, many agreed! So that was encouraging. Also, alerting any and all

see more

1 0 Reply Share ›

Rich Loomis
2 months ago
Yeah, all these recent deaths . . just HAS to be a few oddball chemicals, or Global Warming, or viral bats or such like . . ANYTHING BUT THE VACCINES, yes ANYTHING BUT THE VAX CLOT SHOTS!!!

1 0 Reply Share ›

Francis Marion → Rich Loomis
a month ago
BINGO ! It's all part of the cover-up of the long term side effects from getting the bio-jab! The world is the elites, laboratory an we are their lab rats.

0 0 Reply Share ›

Subscribe Privacy Do Not Sell My Data

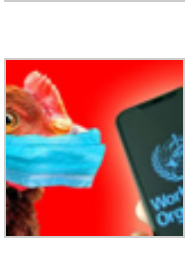
Donate Now

You make the difference.

Latest News

Did the WHO Water Down Its 'Pandemic Treaty'? Not Really, Experts Say

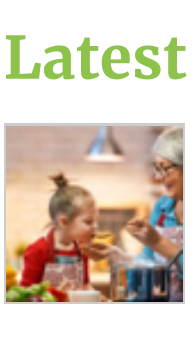
'A Dangerous Vaccine for a Nothing Disease': U.S. Stockpiling Bird Flu Vaccines



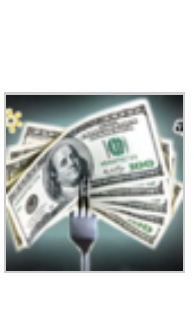
WHO, Media Drum Up Fear of Bird Flu Spreading to Humans

MORE NEWS

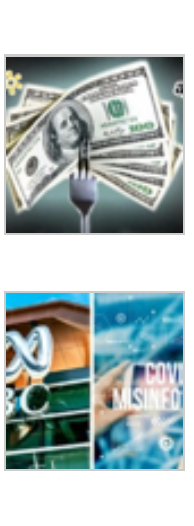
Latest Views



How What You Eat May Change Your Unborn Children's Genes — and Affect Their Health



'Corporate Greed' to Blame for Soaring Food Prices, FTC Report Says



Australia's Public Broadcaster Partners With Trusted News Initiative to 'Protect Public' From 'Misinformation'

MORE VIEWS

Get FREE News & Updates!

First Name..
Last Name..
Email..
SIGN UP

Get Text Alerts

Sign up for breaking news from The Defender

123-456-7890

REQUIRED. Phone number must be in a standard 10-digit format: 1234567890 or 123-456-

THE DEFENDER IS AVAILABLE IN:
ENGLISH SPANISH PORTUGUESE GERMAN ITALIAN FRENCH

Children's Health Defense

Children's Health Defense® is a 501(c)(3) non-profit organization. Our mission is to end childhood health epidemics by working aggressively to eliminate harmful exposures, hold those responsible accountable and establish safeguards to prevent future harm. We fight corruption, mass surveillance and censorship that put profits before people as well as advocate for worldwide rights to health freedom and bodily autonomy.

TAKE ACTION

DONATE FREE SIGN-UP BECOME A MEMBER

Donations are tax deductible to the full extent of the law. EIN #26-0388604

Children's Health Defense • Legal Disclaimer • Terms of Use • Privacy Policy • Donate • About Us • Work for CHD • Contact • Social • Membership Login & FAQ

© 2016 - 2024 Children's Health Defense® • All Rights Reserved • Sitemap